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November 22, 1996

Mr. William F. Caton Acting Secretary Federal Communications Commission 1919 M Street, NW Room 222 Washington, DC 20554

Re: MM Docket No. 87-268

Dear Mr. Caton:

On behalf of the Scripps Howard Broadcasting Company, we transmit herewith Comments on the Sixth Further Notice of Proposed Rule Making in the above-referenced proceeding (FCC 96-317, released August 14, 1996.)

ery truly yours,

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Donald Zeifa

Enclosure

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## Before the

Federal Communications Commission

Washington D.C.

OFFICE OF SECRETARY

In the Matter of	)
	)
Advanced Television Systems and	) MM Docket No. 87-268
Their Impact Upon the Existing	)
Television Broadcast Service.	)

To: The Commission

## COMMENTS ON THE SIXTH FURTHER NOTICE OF PROPOSED RULE MAKING

These comments relative to the Sixth Further Notice of Proposed Rule Making (FCC96-317) are submitted by Scripps Howard Broadcasting Company (SHBC), licensee of six VHF and three UHF television stations. SHBC is also a signatory on the Joint Broadcaster Comments.

PERSPECTIVE: When we consider where we are going, we should know where we are and how we got here. The NTSC system in-use today began growing after World War II, over a period of 50 years. Field strength charts were developed, the TASO studies were made, a transition to color took place, the FCC Rules for NTSC broadcasting were refined, circular polarization was added, stereo began, and picture transmission/reception improved. The design, development, and the deployment of the NTSC system took time. Meanwhile, the public invested millions of dollars for television receivers in order to watch free television.

GOAL: During the past three months the Broadcasting Industry in a unified effort toward DTV has held many Regional meetings, addressed many issues and worked closely with The Broadcaster's Caucus thru MSTV. The Model HDTV Station in Washington D.C. is a

cooperative effort of Broadcasters and Manufacturers to build a foundation of information to build a working DTV system. We believe in the best Public interest, Congress, the FCC, and the Broadcast Industry share the common goal of supporting a timely transition to DTV without sacrificing present NTSC service or compromising the new and future DTV service. To that end, in generating the Sixth FNPRM, the FCC Staff generated an excellent working document for consideration. We will all be learning more as we make the transformation to DTV. There is no benefit in making DTV decisions based on incomplete information.

The goal is to deliver an uncompromised DTV service to the public. These comments address only a few of the important issues before us.

DIGITAL TV SERVICE AREAS: In trying to achieve the goal of "service replication/maximization", effective radiated power levels between UHF DTV channels in many markets have become much greater than for present NTSC UHF service. Picking only one market as an example, for Phoenix Arizona:

DTV channel 23 was listed by the FCC with 50 kW DTV power. Channel 23 is listed for use with NTSC channel 15. Channel 15 operates with an effective radiated power (ERP) of 1,070 kW.

DTV channel 29 was listed by the FCC with 3,914 kW DTV power. Channel 29 is listed for use with NTSC channel 3. Channel 3 operates with an ERP of 100 kW.

The present range of power for NTSC UHF stations in Phoenix is 1,070 kW (the lowest) and 2,750 kW (the highest). So what we see is a 3,914 kW to 50 kW power difference for DTV UHF channels compared to a 2,750 kW to 1,070 kW power difference for NTSC. With no multi-channel DTV receiving experience, how do we know if this large an ERP

power disparity will achieve the desired results? We need more review, by market perhaps, to determine if the high UHF power levels as listed by the FCC for DTV are actually required and if the lower power levels listed will achieve realistic results. Such a review would not delay the implementation of DTV.

Channels that have been listed with low power, should be permitted to operate at a higher power where possible.

The planning factors used by the FCC to calculate the UHF power levels for replication should also be reviewed, particularly the dipole factor, achievable receiver noise figures and receiving antenna gains.

Perhaps the dollars required to achieve "UHF DTV super power" would be better spent for pre-amps within areas beyond the radio horizon.

SPECTRUM FOR DTV: We are not aware of a reason to retain spectrum for broadcasting that is not needed after the transition to DTV is complete. However, the early recovery of broadcast spectrum for the purpose of auction will result in a compromise of NTSC television service to the public and a loss in revenue to the government. Spectrum for auction will be more valuable if available in contiguous bands. A particular service is better-off in a contiguous band since a given service can better control its own adjacent channel interference than interference to/from another service. Broadcast service should not be compromised for the purpose of early auction income. Once a final DTV table is achieved with optimum channel packing density, only then should spectrum be considered for auction.

USE OF CHANNELS TWO THROUGH SIX: More information is needed regarding

potential interference from impulse noise to DTV stations on channels two through six. We will certainly learn more during the transition period. It is too early to make a decision regarding the use of these channels for permanent DTV service.

ASSIGNMENT METHODOLOGY: DTV channels should be assigned based on reasonable replication of NTSC service in order to best duplicate the service the public now receives. In order to minimize interference and best serve the public during the transition to DTV, it may be better to start with reduced DTV power, such as 500 kW maximum for UHF. This power level is realistic to achieve. Higher power levels are not. A lower initial DTV power level would serve to reduce the potential for interference to NTSC and DTV. Power could be increased later, if determined to be necessary. During the transition, those receiving locations beyond the radio horizon would access DTV UHF stations with the use of a pre-amp if an outside antenna alone, was not adequate.

INTERFERENCE: It is reasonable to ignore calculated interference that in reality doesn't exist because it occurs over unpopulated areas or in areas subject to terrain blockage. Broadcasters should be permitted to work together to mitigate areas of mutual interference.

VACANT COMMERCIAL CHANNELS: The market place has already made the decision relative to which areas can be profitably/practically served by commercial and non-commercial channels. The people in these areas would likely be receiving television via cable or by using outside antennas. These channels should be dropped from the assignment table if they prevent a DTV channel from being assigned elsewhere in an active market.

INTERFERENCE FROM NON-BROADCAST SOURCES: Much has been learned about adjacent channel interference between NTSC and land-mobile. In contrast, much less

is known about interference between DTV channels and land-mobile users. At the onset of DTV service, a sufficient guard band area should be planned in a land mobile channel adjacent to a DTV assignment.

LOW POWER AND TV TRANSLATOR STATIONS: It is recognized that some LPTV and translators will be displaced or rendered dark by the DTV process. Some who are not able to re-license to another channel during the transition may be able to re-license a channel after the transition is complete. It may also be necessary to consider translators to serve an area where interference can not be avoided during the transition period. For that purpose, the Rules should permit broadcasters to negotiate with LPTV and translator operators for the purpose of transmitting their DTV signal.

SELECTION OF DTV CHANNELS: During the start-up of DTV, a broadcaster should be permitted to select an alternate DTV channel if one is available. At the end of, or during the transition period, the broadcaster should be permitted to broadcast DTV on the original NTSC channel, if in the final core spectrum. The broadcaster should also be permitted to select a different available channel in the core spectrum for the final DTV channel in order to better serve the public.

The selection of a final DTV channel may be evidenced through the learning process and the finalization of the assignment table near the end of the transition period.

SUMMARY: In order to accomplish the transition to DTV, we must all remain flexible during the learning process. We will accomplish an orderly DTV transition by working together for a common goal. During the past three months, the members of Broadcasting

Industry have concentrated efforts for a timely response to the Sixth FNPRM. The work is in progress to deliver the best possible DTV system.

Warren Happel

Vice President Engineering

Scripps Howard Broadcasting Company

November 15, 1996